Q&A with Cmdr. Tony Parrillo

Director of the FORCEnet Execution Center and Trident Warrior Naval Network Warfare Command

Trident Warrior is the primary FORCEnet Sea Trial series of experiments sponsored by the Naval Network Warfare Command (NETWARCOM) and the Space and Naval Warfare Systems Command (SPAWAR). TW07, the fifth in the series, was conducted March 20 through 30 off the Virginia coast.

CHIPS spoke with Cmdr. Parrillo during Trident Warrior 2007 execution in March.

Trident Warrior director Cmdr. Tony Parrillo with Brad Poeltler, TW deputy director, at the TW07 Process Engineering Workshop in March. Parrillo received a 2007 Copernicus Award in February given by AFCEA International and the U.S. Naval Institute for his outstanding work in Trident Warrior.

CHIPS: What is Trident Warrior?

Cmdr. Parrillo: Trident Warrior is the major annual FORCEnet Sea Trial experiment. It's an experiment and not an exercise. TW03 was the first one. We have been gathering speed and capability over the years.

Within the experiment we look at an experimental environment like you remember from your high school chemistry days. Using controls and variables, we try to reduce the number of variables and have the greatest number of controls so that we know that we are getting the correct data that we need.

We also try to develop 'speed to capability' or rapid fielding. We have had great success getting information technology, which is the most rapidly changing field in the world, out to the fleet to make the Navy more capable.

We develop military utility recommendations. Obviously, the things we experiment with have military utility. If it does not have military utility then we really shouldn't be working with it. And of course, we want to impact the Navy budget and make sure the Navy is spending money on the right capabilities for the right price.

CHIPS: Why experiment, isn't it expensive?

Cmdr. Parrillo: Experiments actually drive down costs. We have these experimental venues which allow us to get the interaction of our Sailors on the deck plates using the technology rather than having guys in lab coats that may or may not have ever been in the military trying to guess what we need.

We get the technologies out early in the development process so that our Sailors can use them, and we can get the best recommendation, the best feedback, of what we really need. It helps us procure only what we need, and it helps us be good stewards of taxpayer dollars.

Since it is an experiment and not an exercise, we don't train the crews. We use new equipment that they just trained on, and they give us recommendations.

The good thing that we are also able to do is: We don't have to follow existing doctrine. We can try out a different doctrine and make recommendations to change the way the military operates.

Here are some of the military capabilities we are testing – maritime domain awareness is important with piracy around the world. You want free commerce because the better that goods travel across the ocean — the cheaper things are for all of us. Within that scope we have a lot of law enforcement focus.

The war on terror is not about 'bombs on targets' anymore; it's about arresting criminals and putting them behind bars for the rest of their lives. To further the CNOs' vision for the 1,000-ship Navy, we are actually working with coalition partners, which includes France this year. We have a great relationship with all those countries: Canada, Australia, New Zealand, Italy and the United Kingdom.

We will work on defense support for civil authorities — the state and local first responders. This part grew out of the Hurricane Katrina and Rita relief efforts. In addition, we are looking at humanitarian assistance disaster relief from the tsunami and the Indonesian earthquakes and assorted other crises around the world that the military has been responding to.

Department of Defense policies have changed; laws have been changed so that the military can provide greater aid, and we can leave our equipment behind when we are done after these humanitarian relief efforts.

There are traditional military items we are working on like the net-centric operations that allow the commander to react quicker and to have better information in his decision process.

There are around 80 technologies. It changes every day. Some days the functionality does not work. We have about 200 objectives. Trident Warrior is about the people, the process and the technology. We don't just concentrate on computers and machines. We worry about the commander and his subordinates and how the process is interactive.

Some of our players this year are: U.S. Joint Forces Command, Second Fleet, Royal Navy Commodore Steve Cleary working with Second Fleet as the Combined Forces Maritime Component Commander, the Harry S. Truman Strike Group, Carrier Air Wing Three and Destroyer Squadron Two Six. The Defense Department's experimental ship, the Stiletto is also joining us.

Other ships include the USS Hue City, USS San Jacinto, USS Oscar Austin, USS Annapolis; from Australia, the HMCS Charlottetown, HMAS Perth and HMAS Arunta; from New Zealand, the HMNZS Te Kaha; and from France, the FNS Lafayette.

We have a lot of players and folks working on shore. This isn't just military focused. The Virginia Beach Emergency Operations Center and a lot of other first responders including the Naval Criminal Investigative Service and the FBI are involved.

CHIPS: Can you talk about any early successes or disappointments?

Cmdr. Parrillo: The biggest successes of the last three years have been Subnet Relay and high frequency (HF) IP. Both are the transfer of Internet Protocol data over existing line-of-sight radio links. SNR uses UHF radio, and HF IP uses standard HR radios.

These systems were actually proposed by our coalition partners in TW05 for their low cost and widespread availability. They were such a success [that] they were proposed to become a program of record, and now we are fielding them as part of a Rapid Technology Transition to the fleet.

Other notable successes have been the acceleration of Automated Digital Network System (ADNS) Increment II by two years; the creation and expansion of the Coalition Maritime Forces Pacific CENTRIXS [Combined Enterprise Regional Information Exchange System] community of interest; and the acceleration of fielding of AIS Phase IIB and developing TTPs for the 'Defense Support to Civil Authorities' objective, just to name a few.

With ADNS Increment II, the Navy's family of shipboard routers will have dynamic bandwidth capabilities for better management. In the past the bandwidth for systems was 'locked in' — meaning so much of the ship's bandwidth was locked in for secret traffic and so much for unclassified traffic.

If the secret portion wasn't being used, it was wasted. Now if the secret side isn't being fully utilized, the unclassified side can use the bandwidth. The same with the phone lines, as soon as a phone is hung up, that bandwidth can be used for data.

AIS, the Automated Digital Network System, is the International Maritime Organization standard for ships at 300 gross or above. AIS Phase IIB is the latest Navy version to help bring this information into the Navy's common operational picture for command and control. Phase IIB brings added sources and functionality greatly increasing capability for the commander.

For disappointments, I won't name any specifics, but several large programs of record had missteps in performance that did not match design objectives. The good news is they were able to utilize the data collected and findings to redesign and improve their products. CHIPS

Top – participants of TW07 and members of the AUSCANNZUKUS TW07 team assemble on Naval Station Norfolk, bottom row: Canadian Navy Lt. Cmdr. Mike Turpin, Royal Australian Navy Lt. Cmdr. Kim Fisher, Canadian Navy Lt. Cmdr. Rob Sibbald and Royal Australian Navy Lt. Cmdr. Brian Cummins; middle row: Royal New Zealand Navy Lt. Cmdr. Danny Kaye, Canadian Navy Lt. Cmdr. Don Allan, Mr. Van Vu from the Australian Navy, Royal Australian Navy Warrant Officer Andy Kirkpatrick and Martin Jordan from SPAWAR; top row: Royal New Zealand Navy Lt. Jonathan Stirling, Mr. Max Lanchbury from the British Royal Navy, Mr. Paul Garnham from the Royal New Zealand Navy, Mr. Mark Coombs from the Royal Australian Navy and Mr. Steve Finch from the British Royal Navy.

OS2 Patrick Dow from the Navy Coastal Warfare Unmanned Vehicle Squadron communicating with the rigid-hull inflatable boat shown above during TW07 experimentation aboard Naval Station Norfolk. The white shield on the RHIB is a radiation detector. In actual operations the RHIB would be unmanned and sent out on security patrols guarding Navy ships against civilian boat traffic. Participants from NETWARCOM, SPAWAR, DoD, the Defense Threat Reduction Agency (DTRA) and industry staged an impressive demonstration of the technologies used in TW07 in March.